

REMARKS

Applicant requests favorable reconsideration and allowance of the subject application in view of the preceding amendments and the following remarks.

Claims 1, 4-16 and 19-35 are presented for consideration. Claims 1, 16, 29, 32 and 33 are independent. Claims 1, 9, 12-14, 16, 20, 21, 23, 24, 27 and 28 have been amended to clarify features of the subject invention, while claims 34 and 35 have been added to recite additional features of the subject invention. Support for these changes and claims can be found in the original application, as filed. Therefore, no new matter has been added.

Claims 29-33, withdrawn from consideration as being directed to non-elected inventions, have been retained in this application in order to preserve Applicant's rights. Applicant requests that the Examiner contact his undersigned representative should it be necessary to cancel these claims in order to advance the subject application to issue.

Applicant requests favorable reconsideration and withdrawal of the rejections set forth in the above-noted Office Action.

Claims 3 and 8 were rejected under 35 U.S.C. § 112, first paragraph. The Examiner asserted that the subject specification did not adequately describe the subject matter recited in these claims. This contention is respectfully traversed. Nevertheless, to expedite prosecution, Applicant has canceled these claims without prejudice or disclaimer. Accordingly, this rejection has become moot and should be withdrawn.

In one aspect of the invention, independent claim 1 recites a semiconductor manufacturing apparatus that includes a chamber enclosing a main body of a semiconductor

apparatus, purging means for purging inert gas in a predetermined area inside the chamber, setting means for setting a maintenance mode, a panel for maintenance, provided in an outer wall of the chamber, a sensor for detecting an opening of the panel and supply means for supplying clean, dry air based on an output of the sensor, when the maintenance mode has been set by the setting means.

In another aspect of the invention, independent claim 16 recites a method of controlling a semiconductor manufacturing apparatus and includes a purging step of purging inert gas in a predetermined area inside a chamber enclosing a main body of the semiconductor manufacturing apparatus, a setting step of setting a maintenance mode and a supply step of supplying clean, dry air based on an output of the sensor that detects an opening in a maintenance panel, the panel being provided in an outer wall of the chamber, when the maintenance mode has been set in the setting step.

Applicant submits that the art of record does not teach or suggest such features of the present invention as recited in independent claims 1 and 16.

Claims 1, 3, 16 and 18 were rejected under 35 U.S.C. § 103 as being unpatentable over the Semiconductor Equipment and Materials International (SEMI) publication S2-0302. Initially, Applicant notes that this publication was issued in March of 2002, and, therefore, does not qualify as a reference under 35 U.S.C. § 102. Accordingly, Applicant requests reconsideration and withdrawal of this rejection on this basis. In turn, Applicant also requests reconsideration and withdrawal of the finality of the above-noted Office Action.

Notwithstanding the foregoing, for the Examiner's convenience, Applicant submits herewith the SEMI standard which applied at the time of the filing of the instant application. That standard is S2-0200, which was issued in February of 2000.

Applicant submits that the SEMI S2-0200 standard merely describes that it is necessary to exhaust hazardous gas during maintenance. Applicant submits, however, that the SEMI S2-0200 fails to teach or suggest any relation between setting of a maintenance, for example, and opening a panel for maintenance in the manner of the present invention.

In addition, the SEMI S2-0200 specifies hazardous gas as being a gas that is chemically dangerous for a human body, rather than an inert gas such as nitrogen gas or helium gas, which exist in atmospheric air. Accordingly, the SEMI standard S2-0200 applies to a situation in which it is necessary to immediately exhaust hazardous gas from a space in which a human body may immediately come into contact.

The present invention, on the other hand, targets inert gas such as nitrogen gas, which is not necessarily chemically dangerous for a human body, because humans can typically tolerate even about a twenty percent oxygen concentration. In this regard, the present invention provides the ability to raise the oxygen concentration after operation of the purging device. To the contrary, the SEMI standard S2-0200 only specifies exhausting hazardous gas and does not teach supplying air in the manner of the present invention.

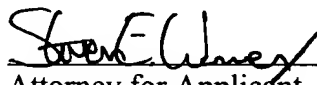
For the foregoing reasons, Applicant submits that the present invention, as recited in independent claims 1 and 16, is patentably defined over the cited art, whether that art is taken individually or in combination.

The dependent claims also should be deemed allowable, in their own right, for defining other patentable features of the present invention in addition to those recited in independent claims 1 and 16. Further individual consideration of these dependent claims is requested.

Applicant further submits that this Amendment clearly places this application in condition for allowance. Favorable reconsideration, withdrawal of the rejections set forth in the above-noted Office Action and an early Notice of Allowance are also requested.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should be directed to our address listed below.

Respectfully submitted,



Attorney for Applicant
Steven E. Warner
Registration No. 33,326

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

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